



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,103	12/05/2003	Mark Peterson	IFC 301A	3072

50488 7590 03/28/2005

ALLEMAN HALL MCCOY RUSSELL & TUTTLE LLP
806 SW BROADWAY
SUITE 600
PORTLAND, OR 97205-3335

EXAMINER

CRUZ, MAGDA

ART UNIT	PAPER NUMBER
----------	--------------

2851

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No. 10/729,103	Applicant(s) PETERSON ET AL.	
	Examiner Magda Cruz	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-26 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-12 and 14-26 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi, et al.

Takahashi, et al. (US Patent Number 4,729,631) discloses a rear projection display system (Figure 16B) comprising an image source (P), a rear reflective surface (M), a screen (S) including a lens array (column 7, lines 25-26) and a mirror (M) array positioned adjacent the lens array (see Figures 16A-16C), wherein the lens array a plurality of lenses (Figure 13) configured to direct light incident on the screen (S) from a first angle onto the mirror array to be reflected toward the rear reflective surface, and wherein the screen is configured to direct incident light from a second angle through the mirror array for display to a viewer (column 7, lines 34-45; Figures 16B and 16C).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2851

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6-11, 14-19 and 21 -26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi, et al. in view of Kato et al.

Takahashi, et al. (US Patent Number 4,729,631) discloses the salient features of the present invention, as explained above, in addition to a screen (S) including an internal reflection element (Figure 4) configured to internally reflect light incident on the screen (S) from a first angle (θ_1) toward the rear reflective surface, and to transmit incident light from a second angle (θ_2) through the screen (S); wherein the internal reflection elements includes a plurality of prism elements (1) having a generally pyramidal cross-sectional shape (Figure 9).

Takahashi, et al. teaches the salient features of the present invention, except a plurality of angularly discriminating reflective elements configured to reflect light, having a dark color for improved contrast, wherein the screen includes a plurality of vertical pixels, and wherein said screen is configured to reflect light incident on the screen. However, Takahashi, et al. discloses prisms (element 1; i.e. reflection element) coaxially extended in the horizontal direction on the screen.

Kato et al. (US Patent Number 4,066,332) discloses a plurality of angularly discriminating reflective elements (5) configured to reflect light, having a dark color for improved contrast (column 1, lines 54-58), wherein the screen includes a plurality of vertical pixels (column 5, lines 47-50); and wherein said screen is configured to reflect light incident on the screen (column 2, lines 3-5).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the plurality of angularly discriminating reflective elements disclosed by Kato et al. in substitution of the reflection element disclosed by Takahashi, et al.'s invention, for the purpose of having a luminance range sufficient to faithfully reproduce the density range of a projected image (column 1, lines 11-13).

Double Patenting

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. Claims 5 and 12 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 3-4 of prior U.S. Patent No. 6,728,032 B2. This is a double patenting rejection.

a. Claim 5 reads on claim 3, column 9, lines 39-41.

- b. Claim 12 reads on claim 4, column 10, lines 1-15.

Response to Arguments

7. Applicant's arguments filed 12/30/2004 have been fully considered but they are not persuasive.

8. Regarding claim 20, the applicant has argued "the part M asserted to be the mirror array is the same part asserted to be the rear reflective surface". However, Takahashi, et al. (US Patent Number 4,729,631) shows two different elements (i.e. a mirror and a reflective surface) named the same (i.e. M) on Figure 16B.

9. Regarding claim 1, the applicant has argued that Takahashi, et al. does not teach, "a screen configured to reflect light incident on the screen from a first angle toward a rear reflector". However, Takahashi, et al. (US Patent Number 4,729,631) teaches such screen (S) configured to reflect light incident on the screen (S) from a first angle (θ_1) toward a rear reflector (1A). This is taught in column 2, lines 34-54.

10. Regarding claim 1, the applicant has argued, "Kato also does not disclose or suggest reflecting light incident on the screen from a first angle toward the rear reflector for reflection back toward the screen". However, the examiner utilized Takahashi, et al. to overcome said limitation.

11. Regarding claim 12, the applicant has argued, "the combination of Takahashi and Kato fails to teach or suggest all of the element of claim 12". However, said claim had been rejected based on double patenting, not over Takahashi and Kato.

12. Regarding claim 16, the applicant has argued, "neither Takahashi nor Kato teaches a rear projection display system in which light from the image source is first reflected from reflective elements in the screen toward a rear reflective surface and then is reflected from the rear reflective surface toward the screen for transmission between the reflective elements". However, Takahashi, et al. discloses

13. Regarding claims 16 and 21, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the plurality of angularly discriminating reflective elements disclosed by Kato et al. in substitution of the reflection element disclosed by Takahashi, et al.'s invention, for the purpose of having a luminance range sufficient to faithfully reproduce the density range of a projected image (column 1, lines 11-13).

14. Regarding claims 5 and 12, the applicant has argued, "each of claims 3 and 4 of Peterson recites the phrase *oriented diagonally*". However, said phrase is not mentioned on claim 3 of Peterson (see column 9, lines 39-41), and is not mentioned on the part cited of claim 4 (see column 10, lines 1-15).

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

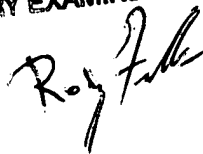
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RODNEY FULLER
PRIMARY EXAMINER



Magda Cruz
Patent Examiner
March 17, 2005